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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/010,800      | 12/07/2001  | Jac-Duck Lee         | 678-706 (P9742)     | 7307             |

28249 7590 02/09/2007  
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| EXAMINER |
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DOAN, KIET M

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2617

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 02/09/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/010,800

Applicant(s)

LEE, JAE-DUCK

Examiner

Kiet Doan

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 11/09/2006 have been fully considered but they are not persuasive.

In response to applicant's request, the Examiner and SPE (George Eng) further review the reference and maintain the rejection. FINAL action is issue.

In response to applicant's argument that examiner ignore the first clause of the claims that recited "setting an area of services covered with a frequency assignment (FA) of a plurality of FAs of a base station currently engaged in communication with mobile communication terminal, to be a boundary cell, the FA is only included in FAs of the base station and not in adjacent stations of the base station".

Examiner respectfully disagrees, in Non-final office action mail on 07/06/2006 the office rejection as "setting an area of services covered with a frequency assignment (FA) of a plurality of FAs of a base station currently engaged in communication with mobile communication terminal, to be a boundary cell, the FA is only included in FAs of the base station and not in adjacent stations of the base station;

entering into the boundary cell by the mobile communication terminal during communication " (C7, L11-67, C8, L1-23, Fig.3, Illustrate telecommunication area 70 wherein contain plurality of cell and each cell contain base station as fig.1 indicated and when the mobile unit move from one cell to the other cell which entering the boundary and before handoff the mobile unit still

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engaged in communication with current base station and not the adjacent stations).

In response to applicant's argument that reference does not even mention "searching FAs of only adjacent stations excluding the base station currently engaged in communication with said mobile communication terminal so as to determine a target FA, with which the mobile communication terminal is to perform the hard hand-off" (C4, L23-67, C5, L1-18, Fig.1, Illustrate target BST 20 as read on adjacent stations and the source BST is the one currently engaged in communication with said mobile unit 26 and for skill in the art when the mobile unit move to adjacent BST which means that the mobile search/find FA of only adjacent stations to be handoff and the source BST be excluding because source BST currently engaged in communication when mobile station/unit 26).

Therefore, examiner interpreted "setting an area of services covered with a frequency assignment (FA) of a plurality of FAs of a base station currently engaged in communication with mobile communication terminal, to be a boundary cell, the FA is only included in FAs of the base station and not in adjacent stations of the base station;

entering into the boundary cell by the mobile communication terminal during communication "

"searching FAs of only adjacent stations excluding the base station currently engaged in communication with said mobile communication terminal so as to determine a target FA, with which the mobile communication terminal is to perform the hard hand-off" as broadest reasonable interpretation and it is proper.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. **Claims 1-7** are rejected under 35 U.S.C. 102(e) as being anticipated by Soliman (Patent No. 6,321,090).

Consider **claims 1, 4 and 7**, Soliman teaches a method for performing a hard hand-off in a cellular mobile communication system, the method comprising the steps of:

setting an area of services covered with a frequency assignment (FA) of a plurality of FAs of a base station currently engaged in communication with mobile communication terminal, to be a boundary cell, the FA is only included in FAs of the base station and not in adjacent stations of the base station;

entering into the boundary cell by the mobile communication terminal during communication (C7, L11-67, C8, L1-23, teach performing a hard hand-off and Fig.3, Illustrate the area of service wherein frequency 1 currently engaged in communication with mobile No.26 and entering into the boundary cell from cell 72 to cell 74 across boundary 98); and

searching FAs of only adjacent stations excluding the base station currently engaged in communication with said mobile communication terminal so

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as to determine a target FA, with which the mobile communication terminal is to perform the hard hand-off (C4, L23-67, C5, L1-18, Fig.1, Illustrate target BST No.20 as read on adjacent stations and the source BST is the one currently engaged in communication with said mobile communication terminal wherein source BST will be excluding when mobile station No.26 perform hand-off to target BST).

Consider **claims 2 and 5**, Soliman teaches the method of claim 1, wherein the target FA is determined by the mobile communication terminal through searching common FAs of adjacent stations to perform the hard hand-off therewith (C7, L51-67, C8, L1-23, Fig.2, No.48 teach selector tracking mobile terminal means as searching common FAs of adjacent stations as f1/f2 to perform the hard hand-off therewith).

Consider **claims 3 and 6**, Soliman teaches the method of claim 2, wherein determination of the target FA includes a step of recognizing that the mobile communication terminal is currently engaged in communication in the boundary cell (C3, L5-22, C4, L31-40, teach tracking signal when mobile within the determined are which means as determination of the target FA includes a step of recognizing mobile currently engaged in communication in the boundary cell), and commanding the mobile communication terminal to search FAs of the adjacent stations excluding the base station currently engaged in communication with said mobile communication terminal by means of a base station controller

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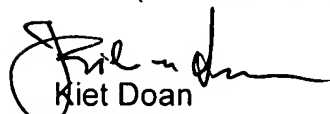
(BSC), which controls the hand-off of the mobile communication terminal (C4, L23-55, C7, L40-67, C8, L1-31, Fig.1, No.12, Illustrate MSC which contain base station controller for controls the hand-off of the mobile communication terminal).

**Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet Doan whose telephone number is 571-272-7863. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Kiet Doan  
Patent Examiner

JEAN GELIN  
PRIMARY EXAMINER

